

1. An isolated polynucleotide which encodes a mammalian Zsig9 polypeptide wherein said polynucleotide encodes a polypeptide selected from the group SEQ ID NOs:2-6, 17, 20 19 and 21 or a polypeptide which is at least 90% identical to the polypeptides of said group.

2. An isolated polynucleotide which encodes a peptide or polypeptide having at least 15 amino acid residues comprised of an epitope-bearing portion of a polypeptide of SEQ ID NOs: 2-6, 17, 20 19 and 21 or a polypeptide which is at least 90% identical to said polypeptides.

3. The polynucleotide of claim 2 wherein the peptide or polypeptide is fused to a carrier polypeptide or other carrier molecule.

4. An expression vector comprising the following operably linked elements:

a transcription promoter;
a DNA segment which encodes a Zsig9 polypeptide or a peptide or polypeptide which contains an epitope-bearing region of a Zsig9 polypeptide; and
a transcription terminator.

5. An expression vector comprising the following operably linked elements:

(a) a transcription promoter;

(b) a DNA segment encoding a chimeric polypeptide, wherein said chimeric polypeptide consists essentially of a first portion and a second portion joined by a peptide bond, said first portion being comprised of a mammalian polypeptide, said polypeptide being the amino acid sequences of SEQ ID NOs:

~~Sub A1~~

A **B** **C** **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N** **O** **P** **Q** **R** **S** **T** **U** **V** **W** **X** **Y** **Z**

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g defined by the amino ac
20 19 and 21 or a polypep
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body of claim 8 wherein
polyclonal.

body, antibody fragment
herein said antibody, ant
body is humanized.

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e or polypeptide defined
or to a peptide or polyp
to said peptide or polyp
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nucleic acid which encodes

7. An isolated peptide or polypeptide having at least 15 amino acid residues comprised of an epitope-bearing portion of a polypeptide of SEQ ID NOs: 2-6, 17, 20 19 and 21.

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9. An antibody of claim 8 wherein said antibody is either monoclonal or polyclonal.

10. The antibody, antibody/fragment or single-chain antibody of claim 9 wherein said antibody, antibody fragment or single-chain antibody is humanized.

11. A method for producing an antibody which binds to a peptide or polypeptide defined by SEQ ID NOS: 2-6, 17, 20 19 and 21 or to a peptide or polypeptide which is at least 90% identical to said peptide or polypeptide comprising bringing into contact a peptide or polypeptide defined by SEQ ID NOS: 2-6, 17, 20 19 and 21 or to a peptide or polypeptide which is at least 90% identical to said peptide or polypeptide with a cell capable of producing antibodies or the cell is brought into contact with a nucleic acid which encodes said peptide or

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and isolating sai
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Add
A2